

## **Kenney, Dan -FS**

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**From:** Hovde, Tyler - FS  
**Sent:** Monday, March 25, 2019 1:36 PM  
**To:** Kenney, Dan -FS  
**Subject:** Re: White Pine Road Densities  
**Attachments:** WPine\_rd\_density\_summary\_v3.xlsx

Dan,  
Please find an update of the road density analysis attached with some footnotes added about what was considered for each alternative. Thanks for the help,

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**From:** Hovde, Tyler - FS  
**Sent:** Monday, March 25, 2019 12:13:39 PM  
**To:** Kenney, Dan -FS  
**Subject:** Re: White Pine Road Densities

Dan,  
Please find the White Pine road densities arranged in Alt 1 and Alt 2 attached.  
Thanks,

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**From:** Hovde, Tyler - FS  
**Sent:** Monday, March 25, 2019 10:37:10 AM  
**To:** Kenney, Dan -FS  
**Subject:** Re: White Pine Road Densities

Hi Dan,

A road density summary for White Pine is attached. Most of the roads within the Headwaters Hangman subwatershed were drawn in using areal imagery as you suggested. The ~1.5 mi new system road was included in analysis. Also, a separate road density calculation takes into account new and existing temp roads within the project boundary.

Thanks,

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**From:** Hovde, Tyler - FS  
**Sent:** Wednesday, March 20, 2019 7:02:30 AM  
**To:** Kenney, Dan -FS  
**Subject:** Re: White Pine Road Densities

Dan,

I'm headed to do some field training today with Cynthia and her tech. I'll work on these items on Thursday.

Thanks,

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**From:** Kenney, Dan -FS  
**Sent:** Tuesday, March 19, 2019 3:59:40 PM

**To:** Hovde, Tyler - FS  
**Subject:** RE: White Pine Road Densities

Thanks, Tyler. One thing I forgot to mention is that the last time I heard, there was a proposal to increase permanent road mileage in the project area. I think that it would be a large oversight to not calculate the change in road density at both the HUC12 and project area scales.

If you feel like it, you can use the NAIP imagery to draw in and thereby estimate the additional road mileage in the Hangman drainage at least for the project area (and you could check up on the Meadow Creek project area road layer that way, too).

Dan

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**From:** Hovde, Tyler - FS  
**Sent:** Tuesday, March 19, 2019 3:52 PM  
**To:** Kenney, Dan -FS <dkenney@fs.fed.us>  
**Subject:** White Pine Road Densities

Dan,

Below are road densities of area HUC 12 watersheds for the White Pine project. If you'd like densities to be calculated only within project boundaries I can crunch those numbers as well. Headwaters Hangman road densities may be low due to lack of data in portions of the watershed under tribal ownership.

Table 3. HUC 12 watershed existing total and streamside road densities with associated current watershed condition.

HUC 12 Watershed	Existing Total Road Density			Existing Streamside Road Density		
	HUC 12 Area (mi <sup>2</sup> )	Road Density (mi/mi <sup>2</sup> )	Existing Condition	Streamside Area (mi <sup>2</sup> )	Streamside Road Density (mi/mi <sup>2</sup> )	Current Condition
Headwaters Hangman Creek	58.4	0.7	High	2.6	2.1	Moderate
Meadow Creek	40.0	2.6	Moderate	9.0	2.9	Moderate

Thanks,



**Tyler Hovde**  
**Hydrologist**  
**Forest Service**  
**NezPerce-Clearwater National Forest**

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